

September 21, 2001

Section 604(b)
Pass Through Projects Inventory
FFY89 - FFY01

(all projects completed unless noted with completion date)

Addison County Regional Planning Commission

Pass funding through to the Middlebury River Watershed Group to allow them to conduct a study of possible sources of increased E-coli levels on an impaired branch of the Middlebury River. (01/01/02)

Develop, for the region, digitally referenced surface waters. Phase II.

Develop, for the region, digitally referenced surface waters and augment existing surface water data by adding certain attribute information. Phase I

Develop priorities for Little Otter Creek watershed water quality improvement. Phase II

Develop priorities for Little Otter Creek watershed water quality improvement by reducing phosphorus transport from agricultural and other land uses to Lake Champlain. Phase I.

Map on-site septic system info for four towns and support On-Site Sewage Committee proposed legislation.

Report on satellite imagery land cover conditions for certain watershed, conduct additional mapping of conditions in Lewis Creek watershed, continue coordination with USDA, sponsor on-site regional meeting.

Assist New Haven River lay monitoring, continue agricultural NPS mapping efforts in certain watersheds, develop capability to utilize LANDSAT TM technology.

Locations of watershed boundaries for seven drainages, of approved (USDA/SCS) agricultural runoff control systems, watershed pollutant loading reductions (incomplete).

Land use/land cover for watersheds of Lake Dunmore and Fern Lake.

Prepare local planning guides for flood plains, wetlands and special/natural areas.

Land use/land cover for Wellhead Protection Areas throughout the region.

Mapped zoning district boundaries within WHPAs of the region.

Evaluation of potential for development within each WHPA of region.

Assist with Lake Champlain Committee's "Planning Manual & Checklist."

Inventory source, number served and the extent of service areas for community and municipal drinking water systems of the region.

Bennington County Regional Commission

Develop digitally-referenced surface waters and augment existing surface water data by adding certain attribute information.

Review municipal health ordinances and related zoning-subdivision regulations and make recommendations for updating such ordinances so they are current and enforceable and protect the state's waters.

Map ground water source protection areas, overlaid with E911 data for all towns in the region.

Update water resources element of the regional plan, survey conservation commissions to identify conditions which either impact or improve water quality, develop study design and scope of work to prepare comprehensive basin/watershed management plan for region and host a meeting on the proposed on-site sewage rules/regulations.

Locate flood hazard areas (i.e. FEMA lines) for Rupert; integrate flood hazard info with wetlands-related information; enhance town-wide water resources planning efforts.

Characterize existing and projected water consumption and use in region, produce greater awareness of management strategies for source supplies.

Collect data for existing water consumption and use for Bennington County.

Location of flood hazard areas (i.e. FEMA lines) for Dorset.

Location/extent of wetlands in Dorset from NWI maps.

Flood hazard area (ie FEMA lines) for Bennington, overlay with NWI wetlands.

Location of flood hazard areas (ie FEMA lines) for Sunderland & Arlington.

Location of flood hazard areas (ie FEMA lines) for Manchester.

Location/extent of surface water classifications in region. Location/extent of six use restricted waterbodies of the region.

Location/extent watershed boundaries for 14 lakes & ponds in the region greater than 20 acres.

Location/extent of WHPAs in region, attribute information for WHPAs.

Highlight NWI information for region.

Develop a VT Hoosic River Watershed Ground Water Protection Strategy.

Central VT Regional Planning Commission

Continue development of a GIS "Impervious Surfaces" data layer for the Thatcher Brook, Great Brook Shepard Brook and Mill Brook watersheds. (4/25/02)

Initiate development a GIS "Impervious Surfaces" data layer to track growth and evaluate cumulative growth impacts in order support policies that limit or reduce the amount of impervious surfaces, initially in the Mad River watershed.

Review municipal plans and zoning regulations and make recommendations for additional water quality protection in 23 towns in the region.

Map unstable banks on the Mad River to assist with the creation of filter strips (filter strips done by others).

Develop a series of planning maps for each town , showing information developed in previous water quality and surface water inventories.

Enter onto the regional GIS the location of all cascades, waterfalls, gorges and whitewater sections in the Region, assist the Dept. with a regional public meeting regarding the status of the on-site sewage reform legislation.

Develop (for remainder of region) digitally referenced surface waters by Waterbody ID and calculate Waterbody sizes; augment existing surface water data by adding certain attribute info.

Develop (for Duxbury, Northfield & Roxbury) digitally referenced surface waters and attributes, sponsor on-site regional public meeting.

Develop (for Fayston & Warren) digitally referenced surface waters and attributes.

Land use/land cover within WHPAs and watersheds of public surface water supplies throughout region.

Land use/land cover for Town of Woodbury at 1:5000 scale.

Land use/land cover for watersheds of at least 5 lakes and ponds in Woodbury, spatial analysis of 5 watersheds.

Sponsored WNRCD to develop soil erosion control handbook for construction equipment operators.

Location/extent of watershed boundaries for lakes/ponds in region greater than 5 acres.

Sponsored DEC to enter NWI Wetland areas by county.

Mapped land use and zoning districts within WHPAs of Calais and Plainfield.

Mapped land use/land cover within WHPAs of region and watersheds of public water supplies.

Mapped extent of existing and planned service areas.

Location and attributes of waterfalls, cascades and gorges and whitewater segments within Calais and Plainfield.

Chittenden County Regional Planning Commission

Identify and map eroding stream banks, stormwater discharge points, vegetative buffers, wildlife use and land uses within 100' of Indian Brook and tributaries in Colchester & Essex (9/24/01)

Review municipal plans and zoning regulations and make recommendations for additional water quality protection in 17 municipalities in the region with adopted municipal plans.

Continue work on automation of municipal drinking water distribution and sewage collection and treatment systems using ARC/INFO GIS for the Town of Milton.

Complete work on automation of municipal sewage collection and treatment systems using ARC/INFO GIS for the towns of Williston and Essex.

Develop digitally-referenced rivers and streams in Chittenden County by Waterbody ID and calculate Waterbody sizes.

Map all drinking water distribution lines greater than 2" for at least one Chittenden County town.

Digitize approximate location and extent of surface water for region, certain attributes, sponsor on-site regional public meeting.

Outfall location associated with each municipal and industrial wastewater treatment facility in region, assist DEC with spatial analysis of urban/suburban conditions in LaPlatte River watershed for Nonpoint source phosphorus TMDL project.

Watershed boundaries for major surface watersheds (50 in number) within region.

Land use/land cover, parcels (where available) and zoning district boundaries within WHPAs in Charlotte, Colchester and Jericho.

Location/extent of land use, parcels and zoning district boundaries within WHPAs of Hinesburg, Richmond and Underhill, well attribute information (incomplete).

Analysis of potential for development within WHPAs of Hinesburg and Richmond.

Assist with Lake Champlain Committee's "Planning Manual & Checklist."

Lamoille County Planning Commission

Compare municipal plans and ordinances with DEC's *Local Planning and Zoning Options for Water Quality Protection*, making recommendations for additional water quality protection in those documents as necessary; assist 2 municipalities with updating the water quality protection elements of their plans/ordinances; update the Water Resources component of the Regional Plan (4/25/02).

Prepare a comprehensive catalog and spatial inventory of watershed implementation analyses projects that have been carried out and funded by various agencies within the Upper Lamoille and Upper Little River basins; update the Water Resources element of the Regional Plan (12/31/01).

Provide a septic system suitability and land cover analysis for the remaining five watersheds in the county, and continue to collect water resource policies and priorities for the next update of the regional plan.

Provide a streambank and land use inventory along Wild Branch River in Wolcott and Craftsbury; provide Wolcott with recommendations for areas of building restrictions due to past flood damage; provide Wolcott with a septic system suitability analysis in Wild Branch watershed; continue collecting water resource policies for next update to regional Plan.

Provide a septic system suitability analysis for the West Branch River watershed in Stowe; to continue to collect relevant water resource data for the next update of the regional plan, and assist with public outreach regarding any recent on-site sewage reform rule change.

Spatially locate all boundaries of the Green River watershed and overlay the watershed with septic system suitability information and previously-acquired land use/land cover information; complete the update of the Regional Plan to include water resource policies and priorities, and assist the Dept. with public outreach regarding the status of on-site sewage reform.

Prepare town maps depicting the area and extent of each septic system suitability class for the region.

Map the boundaries of the Gihon watershed and locate the extent of septic system suitability soils information and land use/land cover.

Begin update of Regional Plan to include water resource policies and priorities.

Update regional soils information (septic system suitability), illustrate North Branch watershed land use/cover with septic system suitability, sponsor on-site regional public meeting.

Spatially referenced locations and characteristics of sites where hazardous materials (active/inactive landfills, state/local active salt storage sites, state "registered" non-petroleum haz. waste sites & underground storage tanks, on-site sewage disposal systems greater than 6500 gpd) may be used, stored or generated.

Design, develop and deliver certain portions of an education and information program regarding water source protection planning.

Location and extent of distribution and/or collection lines for municipal drinking water, municipal stormwater and municipal sanitary wastewater throughout the region.

Location and extent of surface water classified as Class C.

Location/extent of land use within WHPAs of region, well attribute information.

Mapped zoning district boundaries and extent of existing and planned service area within WHPAs of the region.

Location/extent and attributes of waterfalls, cascades and gorges of the region, evaluate the potential for loss of these features.

Mapped location and attributes of whitewater segments in region. Inventory (for regional plan development) locations of boating access points, use restricted waters, locations of federal*, state* and municipally* owned property along/adjacent to surface water, locations of hydroelectric* and hydro-related facilities*, locations of targeted waters, trophic status and watershed area for lakes/ponds over 20 acres and locations of nutrient sensitive lakes/ponds* and extent of watershed area; (*) denotes to be GIS compatible

Northeastern VT Development Association

Assist with the management of the Nulhegan River watershed by providing technical support for Nulhegan watershed groups, making recommendations for establishment of management goals for the surface waters in the Nulhegan watershed, revising the Nulhegan River watershed map as necessary, and holding a public forum to gather comments (05/01/00).

Assist the building of local water quality planning capacity to protect the waters of the Nulhegan River watershed by reviewing town plans and land use regulations and making water quality protection recommendations for these documents

Assist the Nulhegan River assessment by developing a set of GIS maps of the Nulhegan River watershed showing watershed boundaries, land use/land cover, potential pollution sources, existing uses and hold a public hearing to gather further information about public uses.

Develop (for certain NVDA towns in the Barton, Memphremagog, Coaticook and Clyde River basins, digitally-referenced surface waters and augment existing surface water data by adding certain attribute information.

Develop for certain NVDA towns in the Missisquoi, Black and Barton River basins, digitally-referenced surface waters by Waterbody ID and calculate Waterbody sizes; augment existing surface water data by adding certain attribute info; assist with public information re the on-site sewage reform.

Spatially reference location/extent of large clear-cutting operations in four towns, review certain programmatic aspects of VT AMPs, sponsor 2 on-site regional public meetings.

For the Passumpsic River basin, inventory locations of unique natural areas, locations of existing and potential public access points to surface waters and evaluate the adequacy of existing municipally-based mechanisms for protecting these resources.

Location/extent of distribution and/or collection lines for municipal drinking water, municipal stormwater and municipal sanitary wastewater for Newport City, Canaan, Danville and St. Johnsbury.

Develop model shoreland ordinance for use in N.E.Kingdom. Prepare/distribute undeveloped shorelines report.

Location/extent and characteristics (zoning, size and use of undeveloped sections, parcels) of undeveloped shoreline areas of lakes/ponds of the region larger than 10 acres, assess adequacy of present municipal shoreline ordinances, develop criteria and prioritize lakes in region in need of protection.

Assist with digitization of features associated with CT River Inventory Project.

Assist with mapping and characterization of features associated with CT River Inventory Project.

Mapped land use, zoning districts and extent of service area within the Wellhead Protection Areas of Brighton, Concord, Greensboro and Sutton.

Watershed boundaries for 88 lakes/ponds in region greater than 20 acres, land uses and zoning districts within watersheds of lakes/ponds in at least 4 municipalities.

Highlight NWI maps information for 12 municipalities.

Northwest Regional Planning Commission

Phase II of a project to compare adopted town plans and zoning regulations with DEC's *Local Planning and Zoning Options for Water Quality Protection*, and making recommendations for additional water quality protection in those documents as necessary.

Phase I of a project to compare adopted town plans and zoning regulations with DEC's *Local Planning and Zoning Options for Water Quality Protection*, and making recommendations for additional water quality protection in these documents as necessary.

Mapping of surface waters and waterbodies in Grand Isle County, Lake Champlain direct drainage and Franklin County, and attribute the waterbodies with DEC-designated WBIDs, and generate a tabular summary of water course lengths by VT WBID and stream names.

Conduct a GIS-based land use inventory and analysis of the Missisquoi River watershed and its major sub-basins, and assist the Dept. in sponsoring a regional public forum regarding the status of the on-site sewage reform.

Inventory and digitize on GIS maps, streambank erosion along the Missisquoi River within the Region.

Develop, review & present to public basic regional water resource policies for regional plan, spatially reference certain DEC-WQ information, sponsor on-site regional public meeting.

Map and characterize Lake Carmi watershed land use.

Map and characterize undeveloped shoreline areas of St. Albans Bay & Missisquoi Bay.

Prepare/distribute local strategies for ground water protection handbook.

Location/extent of land use and zoning districts within WHPAs of the region.

Develop/expand regionally based matrix which identifies regionally significant water resources and specific abatement measures for land use scenarios.

Assist with Lake Champlain Committee's "Planning Manual & Checklist."

Mapped extent of existing and planned service area within WHPAs of the region.

Rutland Regional Commission

Develop the Water Resources and Quality element of the Regional Plan; continue collecting data and information on the Poultney-Mettawee watershed; coordinate with DEC's watershed planning efforts, and provide logistical support for any public meeting held in the region (06/30/02).

Assist the building of local water quality planning capacity by inventorying, coordinating and consolidating existing water quality planning efforts and developing water quality protection sections for the Brandon and Hubbardton Town Plans.

Using cdroms, transfer water resources information to 26 towns in the region and host informational forums to explain how the towns can use the information to protect water quality.

Update existing water resources information in the Rutland region, develop a waterbody map of the region, attributed with DEC-designated WBIDs, and supply the town of Brandon with a cdrom containing the waterbody information for the town of Brandon.

Study the bedrock influence on water quality and yield for certain public community water systems in the Region and share this information with owners of the systems; assist the Dept. with a public forum regarding the status of the on-site sewage reform.

Map current and proposed land uses (and their areas) within groundwater source protection areas and share info with towns and DEC.

Investigate use of GPS technology in locating private wells and surface water sources in part of region, sponsor on-site regional public meeting.

Develop regional water resource policies for regional plan, present spatially based water resource information using the GIS.

Attribute information associated with 67 community water systems of the region.

Identify and display, for each waterbody in region greater than 20 acres in size (35 waterbodies) the configuration and extent of surface water located within 100' and 200' of shore, identify waterbodies in region under use restrictions enacted by VT Water Resources Board.

Location and attributes of privately owned domestic wells in Brandon and Wallingford.

Location/extent of land use and zoning district boundaries within the WHPAs of Brandon and Wallingford.

Assist with Lake Champlain Committee's "Planning Manual & Checklist."

Location/extent of watershed boundaries for lakes/ponds in region greater than 5 acres.

Southern Windsor County Regional Commission

Determine what additional data is needed to describe how and why Mill Brook and its tribs are changing course over time, and educate landowners in activities that will reduce run-off and erosion on Mill Brook (4/24/02).

Assess stream bank erosion problems on Mill Brook tribs, produce a report and involve landowners in developing plans for bank stabilization.

Assess stream bank erosion problems on Mill Brook, produce a report, and involve riparian landowners in developing plans for bank stabilization.

Assess stream bank erosion problems of tributaries in the Mill Brook watershed, produce a report, and involve riparian landowners in developing plans for bank stabilization.

Complete the first phase of work for the development of a regional water quality plan by preparing regional GIS maps depicting updated surface water uses and values and certain land uses and practices; making recommendations for segments in need of further assessment, and holding a regional public meeting to obtain feedback on surface water uses and threats.

Assist with hosting a Project "WET" workshop and spatially analyze potential impacts of land use activities in the Mill Brook watershed on water quality and water uses.

Assess the potential impact of agricultural activities on nonpoint source pollution in the Mill Brook watershed, and assist the Dept. with public outreach regarding the status of the on-site sewage reform.

Continue developing the Regional Watershed Protection Program and assist local groups involved with water quality protection in the SWC region.

Assist Ascutney Local River Subcommittee in the review of health & sewage ordinances and town plans in 3 towns, increase town involvement associated with Regional Watershed Protection Program, sponsor on-site regional public meeting.

Location and extent of potential pollution sites and current uses of waterbodies in region using GIS.

Land use/land cover and parcel conditions along the CT River, evaluate river protection criteria against land use and parcels, characterize location, type and owner of domestic point sources to CT River.

Initiate phase I of III regarding a Regional Watershed Protection Program.
Forums for local officials regarding the implementation of tools/techniques for surface water quality protection.
Assist with digitization of features associated with CT River Inventory Project.
Assist with mapping and characterization of features associated with CT River Inventory Project.
Location/extent of surface waters and WHPAs in region.
Location/extent of waterfalls, cascades and gorges and whitewater segments in the region, attribute information.
Mapped surface water classifications in region.
Surface water monitoring project on several rivers in region with River Watch & CT River Watershed Council.

Two Rivers-Ottawaquechee Regional Commission

Assist three towns along the Second and Third Branches of the White River and the White River main stem with updating the Water Quality protection sections of the town plans and regulations; attend White River Partnership and town meetings regarding the White River Plan, review and comment on the Plan (4/23/02)
Digitize and document streambank erosion points on the main stem of White River, prepare written assessments and reach reports and provide copies to the White River Partnership and towns.
Review municipal plans and zoning regulations and prepare recommendations for additional water quality protection for 23 municipalities in the region.
Assist with the rotational basin assessment, conduct a GIS-based land use inventory and analysis of the Barnard Brook watershed, and involve the public in the process through a public meeting.
Update the water resources element of the Regional Plan, survey town planning and conservation commissions to identify conditions which either impact or improve water quality, and develop a study design and scope of work to prepare a comprehensive basin/watershed management plan for the Ottawaquechee River watershed.
Update the Windsor County surface water GIS data sets and assist the Dept with public outreach regarding the status of the on-site sewage reform.
Edit and code surface waters in 16 towns to current VCGI attribute standards, label surface waters with their appropriate VT Waterbody ID number and calculate the length of riverine surface waters by WBID number.
Spatially reference land use/cover conditions in 3 towns, document potential NPSs pollution, sponsor on-site regional public meeting.
Coding of surface waters (VCGI protocol) in towns of region located in Windsor County.
Location of major surface waters and tributaries in Windsor County portion of region (includes 10 towns), location and extent of potential Nonpoint pollution sources (defined as an inventory of land use) immediately adjacent (within 150 feet of shore) to major surface waters and tributaries entered above.
Location, extent and characteristics of land use, zoning district boundaries and parcels found in upper White River towns (Granville & Hancock), identify riparian conservation strategies, complete phase III report.
Assist with digitization of features associated with CT River Inventory Project.
Assist with mapping and characterization of features associated with CT River Inventory Project.
Land use/land cover within WHPAs for the region.
Annotate each surface water segment in region.
Verify and enter all point source locations in region.
Location & attributes of waterfalls, cascades, gorges & whitewater segments of the region.
Location and attributes of hydroelectric and hydro-related facilities of the region.
Highlight information on NWI maps for 3 municipalities.

Upper Valley - Lake Sunapee Council

To assist the Hartford Conservation Commission by digitizing the town's groundwater favorability areas to enable integration of groundwater information with other town natural resource planning activities, and coordinate public meetings and other outreach activities conducted as part of the White River planning process, as funding permits (6/25/02).
Assist with the rotational watershed assessment by hosting public meetings to exchange water quality information for Lull's Brook, revise the watershed map to reflect any new public info, and gather public info regarding other water quality issues in the Harland Area for Town Plan recommendations (12/31/01).
Assist with the rotational water quality assessment by developing a set of GIS maps of Lull's Brook watershed showing land uses and potential contamination sources in the towns of Hartland and West Windsor, and encourage public involvement to identify additional existing uses and potential contamination sources.

Assist with the rotational water quality assessment by developing a set of GIS maps of the Bloody Brook watershed in the town of Norwich, and by co-hosting a public meeting with the Norwich Conservation Commission.

Collect and evaluate information re the status of water supply protection in certain towns and identify each community's needs relative to water supply protection.

Draft an updated and expanded water resources component for the Hartland Town Plan.

Identify, map and enter onto GIS land use/land cover of parcels adjacent to Ottauquechee, White, Ompompanoosuc and West Branch of the Ompompanoosuc Rivers in the region.

Summarize/compare water quality protection features contained in zoning ordinances and subdivision regulations of 10 towns, sponsor on-site regional public meeting.

Identify, map and enter onto GIS land use/land cover of parcels adjacent to CT River in region.

Update/revise maps and data files associated with inventory of formal and informal public access points found on the Ottauquechee, White and Ompompanoosuc Rivers.

Coordinate the CT River Inventory Project - a project which will map and enter many natural resource items found in the 29 VT towns adjacent to the CT River.

Assist with administration of CT River Inventory Project.

Location/extent and characterize public access points to major waterways of region (other than CT River).

Promote bi-state (NH & VT) conference on CT River.

Windham Regional Commission

Assist with the Connecticut River Conservation District Coalition Riparian Forest Ecosystem project that will identify and map eroding stream banks, types of vegetative buffers, wildlife use and land uses within a min. of 100' of the Rock River in the towns of Newfane, Dummerston and Dover, and hold a public forum (09/14/01).

Develop an Action Plan for the West River watershed based on the high priority issues identified in the West River Watershed Alliance forums.

Continue to upgrade the level of detail and accuracy of the GIS surface waters data layer, and provide better base information for watershed planning and the rotational basin assessment.

Assist with rotational watershed assessment by building a regional watershed planning process and by continuing the work of assessing nonpoint source pollution areas on tributaries of the West River.

Initiate a water quality improvement project for the West River Basin, in cooperation with the Bonnyvale Environmental Education Center, and assist the Dept with public outreach regarding the status of the on-site sewage reform.

Continue working with On-Site Sewage Committee to develop plan of action and assist with dissemination of info from Committee to towns in Windham region.

Develop a protected lands map for six Connecticut River towns in the Region, identifying gaps of important resource land protection, including riparian lands.

Summarize/compare water quality protection features contained in bylaws and ordinances of 6 towns, assist with Deerfield River hydro relicensing public participation, sponsor on-site regional public meeting.

Determine condition of individual sewage disposal systems in Dummerston, Newfane and Putney, enhance administration and enforcement of sewage ordinances in region.

Inventory and evaluate local and state septic system control programs, conduct septic system workshops, continue attending Deerfield River Compact meetings.

Assist DEC-WQ with Deerfield River comprehensive river planning, design local implementation strategies, regional plan review.

Assist with digitization of features associated with CT River Inventory Project.

Assist with mapping and characterization of features associated with CT River Inventory Project.

Draft and present to the public policies and action program recommendations regarding recreational greenways adjacent to major rivers/streams in region.

Evaluate Jamaica Town Plan & Regulations with respect to NPS pollution, draft suggested amendments.

Conduct Upper West River Basin "water forums."

In 1989 a cooperative pass through effort involved the **Otter Creek Natural Resources Conservation District** and the VT ANR/GIS. The order in which data were entered onto a geographic information system [for Addison County]...was as follows:

1. surface water classifications
2. public water supply wells
3. aquifer protection areas
4. important water related features - waterfalls, gorges, cascades, whitewater segments
5. wetlands
6. warm and cold water fishery waters
7. important regional swimming areas
8. public surface water supplies
9. electric generating sites